2nd Symposium on Public Safety and Workshop, Case Western Reserve University, Feb. 18-19, 2020

Cleveland, Ohio USA

Submitted by Roger Avakian, Avakian PolyChem Consulting LLC

This event was organized by Prof. Hatsuo Ishida from Case Western Reserve University's Macromolecular Science and Engineering Department. It was a continuation of a symposium held two years ago to organize and promote collaboration between personnel interested in flammability research, development and testing. Most of the topics presented this year also focused on fire safety. There were 120 attendees with representatives from NASA, NIST, Sandia National Labs, PINFA-NA, UL, the University of Lille, Case and several American universities and companies. Twelve attendees were from the six PINFA-NA member companies, namely PolyOne, Lanxess, Budenheim, Avakian PolyChem Consulting LLC, LyondellBasell and Clariant.

Terry Brady, CEO of Underwriters Laboratories was interviewed by Dr. Suzanne Rivera, VP of Research and Technology, CWRU, and gave his perspective on UL's strategy toward public safety including flammability research. He emphasized collaboration between UL and partners in doing basic research and applications development funding by UL's commercial testing group.

Layered approaches to flame retardancy using various inorganic platelet materials were presented by Professors Serge Bourbigot, University of Lille, France, Professor Jamie Grulan, Texas A&M and by Professor Douglas Fox, American University. These academics emphasized this unique approach to flame retardancy in various foam and fiber/textile formats. Dr. Wnek, CWRU, presented work on the use of polyacrylic acid salts with various other additives as char formers. Professor Hatsudo Ishida gave an overview of benzoxazines as a class of potentially extremely inherently flame-retardant thermoset polymers, which are now commercial. Dr. Alex Morgan gave a good summary of upcoming fire issues in automotive and transportation due to new technical developments. PINFA-NA's Tim Reilly gave an excellent overview on what is desired by industry in new flame-retardant technologies and what potential issues to be aware of during commercialization.

A special highlight was a given by Stephen Kerber, VP for Research at UL, that featured a video of a room fire fabricated from traditional natural materials and one now made from synthetic materials. The video emphasized the time to flash over for the traditional room at around 29 minutes vs. the current room at 3 minutes while the average response time for fire fighters is 6 minutes. Quite an eye-opening video that warrants further communication to the public emphasizing the need for flame retardant furnishings. Another video made by UL showed the dramatic effect of a closed bedroom door on flame/smoke spread in a house fire, with the bedroom door closed scenario giving ample time to escape, not so for the open door. Both videos are quite dramatic and worth broader distribution.